

Amendment

Response to Final Office Action dated September 7, 2010

**REMARKS**

These amendments and remarks are in response to the Final Office Action dated September 7, 2010. This response is accompanied by a Request for Continued Examination. Applicant requests a three-month extension of time and authorization is given to charge Deposit Account No. 50-0951 for the appropriate fees.

In the Office Action, claims 1-6 and 8-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over PCT Publication No. WO 03/095060 to Gandolfi et al. ("*Gandolfi*") in view of European Patent Publication No. 60238492 to Nagano ("*Nagano*"). Applicant submits that the claims are patentable over the prior art.

In claim 1, the expression "layer of zirconium or zirconium alloy" has been replaced by "tube of zirconium or zirconium alloy". Analogously, in claims 2-6 and 8, the term "layer" has been replaced by "tube". The fact that the layer of zirconium or zirconium alloy is indeed a tube finds support clearly and unambiguously from the description and in particular from the way the zirconium coating is bonded to the titanium tube, as well as from the figures.

The presence of a tube of zirconium (or zirconium alloy) bonded to a tube of titanium (or titanium alloy) is clearly not disclosed or suggested by *Nagano*. A tube of zirconium bonded together to a tube of titanium metallurgically or through welding cannot be compared or confused to a layer of zirconium that has been deposited on the surface of a tube of titanium.

The method disclosed in *Nagano* of electrolytical deposition of zirconium on a surface of titanium cannot be considered by a person of ordinary skill in the art to teach or suggest the provision of a zirconium tube bonded to the titanium tube metallurgically or through welding because the method of *Nagano* is not at all suitable to be used for coating the internal surface of the tubes of a tube bundle, which conventionally are very long and have a very small diameter. The skilled person would have not considered to apply a layer of zirconium to the tubes of a tube bundle made of titanium since he would have recognized that no uniform, practicable layer could have been obtained through the method of the prior art and thus he would have disregarded such a kind of combination zirconium-titanium in connection with the tubes of a tube bundle.

In *Gandolfi*, a tube bundle with the tubes made in titanium is disclosed for an apparatus intended for treating high corrosive chemical agents. From reading *Nagano*, the skilled person

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could have obtained no information or suggestion to combine the tubes of titanium of the tube bundle with tubes of zirconium bonded thereto metallurgically or through welding, such a combination being only possible with the exercise of an inventive skill.

In contrast to what is stated in the Office Action, *Nagano* would have directed the skilled person to exclude zirconium as a possible metal to be used in connection with the tubes of the tube bundle in view of the particular deposition method therein described, which would have been recognized by the skilled person as not suitable for the tubes of a tube bundle. Moreover, the available prior art documents are also clearly silent about the provision of tubes made of zirconium bonded metallurgically or through welding to the tubes of the tube bundle. The claimed combination of tubes of zirconium and tubes of titanium is thus missing from the prior art as well as the specific bonding techniques claimed.

For the foregoing reasons, the subject matter of present claim 1 is believed patentable. The same arguments also apply to dependent claims 2-6 and 8-12, which are believed allowable because of their dependence upon an allowable base claim, and because of the further features recited therein.

Applicant has made every effort to present claims which distinguish over the prior art, and it is thus believed that all claims are in condition for allowance. Nevertheless, Applicant invites the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. In view of the foregoing remarks, Applicant respectfully requests reconsideration and prompt allowance of the pending claims.

Respectfully submitted,

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